

REMARKS

In the application, claims 1- 24 are pending and subject to a restriction requirement. No amendments are being made to the claims in conjunction with this response.

The Examiner is of the opinion that the claims are directed to more than one species of the generic invention, which species are deemed to lack unity of invention. The Examiner is requiring election of a single species from the group of logic functions listed in claim 3: OR, AND, NAND, XOR, or EQ.

In response, Applicants elect the OR function with traverse.

Applicants respectfully traverse the restriction requirement on the grounds that the implementation of logic functions using transcriptional control is neither taught nor suggested by Kirch et al. (*Oncogene*, 18:2728-2738, 1999) such that the invention as claimed in the generic claims is, in fact, a contribution over the prior art.

While Kirch et al. admittedly teach transcriptional control of gene expression, nothing in the publication suggests that a logic function can be effected by selective interaction of regulatory proteins at binding sites of a target gene. Figure 2 of Kirch et al., which the Examiner points to as being especially relevant, and the text describing that figure, relate to varying degrees of transcription activation potential of different promoter constructs. The fact that the cis-activating functions of different motifs are shown to be important for transcription does not teach or suggest the use of transcriptional control for implementing logic functions to produce a desired genetic signal

It appears that the Examiner may be implying that Kirch et al. inherently discloses the implementation of logic functions by transcription control. However, it must be clear that the implementation of logic functions is necessarily present in the teachings of Kirch et al., and that it would be so recognized by persons of ordinary skill. “The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (*emph. added*). Accordingly, it is submitted that the use of transcription control to implement logic functions as claimed is, contrary to the Examiner’s assertion, a contribution over the prior art such that an election of species consisting of different logic functions should not be required.

Should the Examiner believe that prosecution of this application might be expedited by further discussion of the issues, she is invited to telephone the undersigned attorney for Applicants at the telephone number indicated below.

Respectfully submitted,



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